U.S. Patent No 10,873,595 v. Zoho

Overview

Plaintiff accuses Defendant of infringement through making, using, selling, offering for sale and importation of the Zoho's ("Defendant" or "Zoho") ManageEngine, including Endpoint Central and Vulnerability Manager Plus (the "Accused System and Method"), and all substantially similar products. The term "Accused System and Method" includes the associated computer hardware, interfaces, software and data, and the processes and methods related thereto.

The Accused System and Method is accused of directly infringing U.S. Patent No. 10,873,595 (the "'595 Patent"). Plaintiff further accuses Defendant of indirectly infringing the '595 Patent by providing its customers and others with the Accused System and Method to utilize in an infringing manner. Defendant intends to cause infringement by its customers and users as Defendant instructs users to use the Accused System and Method in an infringing manner. Defendant deploys client software to implement the Accused System and Method. Defendant also provides support and implementation services for the Accused System and Method, including providing instructions, guides, online materials, and technical support.

The asserted claims include elements that are implemented, at least in part, by proprietary electronics and software in the Accused System and Method. The precise designs, processes, and algorithms used in them are held secret, at least in part, and are not publicly available in their entirety. An analysis of Defendant's documentation and/or source code may be necessary to fully and accurately describe all infringing features and functionality of the Accused System and, accordingly, Plaintiff reserves the right to supplement these contentions once such information is made available to Plaintiff. Furthermore, Plaintiff reserves the right to revise these contentions, including as discovery in the case progresses, in view of the Court's final claim construction in this action and in connection with the provision of its expert reports.

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at at least one server: identifying first vulnerability information utilizing second vulnerability information (e.g., To vulnerability information utilizing second vulnerability information (e.g., To vulnerability information utilizing second vulnerability information (e.g., To vulnerability information utilizing second vul	10,873,595 Claim 1	Evidence
of potential vulnerabilities, the first vulnerability information being identified by: Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):	at at least one server: identifying first vulnerability information utilizing second vulnerability information that is used to identify a plurality of potential vulnerabilities, the first vulnerability information being identified	ManageEngine, when in operation, practices a method comprising: a server (Vulnerability Manager Plus Server) and identifying first vulnerability information utilizing second vulnerability information (e.g., The vulnerability information collected across multiple endpoints is consolidated in a web console for centralized management and is generated using information available on a Central Vulnerability Database) that is used to identify a plurality of potential vulnerabilities (e.g., a Vulnerability Manager Plus then scans your network for software/zero-day vulnerabilities and displays them in a dedicated view in the console) Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):

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Enterprise vulnerability management software

Vulnerability Manager Plus is a multi-OS vulnerability management and compliance solution that offers built-in remediation. It is an end-to-end vulnerability management tool delivering comprehensive coverage, continual visibility, rigorous assessment, and integral remediation of threats and vulnerabilities, from a single console. Whether your endpoints are on your local network, in a DMZ (demilitarized zone) network, at a remote location, or on the move, Vulnerability Manager Plus is the go-to solution to empower your distributed workforce with safe working conditions. Learn how to perform step-by-step vulnerability management in your enterprise with Vulnerability Manager Plus.

Scan



Scan and discover exposed areas of all your local and remote office endpoints as well as roaming devices.

Assess



Leverage attacker-based analytics, and prioritize areas that are more likely to be exploited by an attacker.

Manage



Mitigate the exploitation of security loopholes that exist in your network and prevent further loopholes from developing.

https://www.manageengine.com/vulnerability-

management/?pos=EndpointCentral&loc=ProdMenu&cat=UEMS

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Comprehensive vulnerability scanning

Eliminating blind spots is the basis of successful vulnerability management. To achieve this, Vulnerability Manager Plus:

- Detects known or emerging vulnerabilities across all your network endpoints, including workstations, laptops, servers, web servers, databases, virtual machines, and content management systems.
- Offers continuous visibility into your endpoints, whether they are located at the local office, in a demilitarized zone, at a remote location, or always on the move.
- Extends your visibility beyond just vulnerabilities and identifies misconfigurations, high-risk software, active ports, and much more.

https://www.manageengine.com/vulnerability-management/vulnerability-scanner.html

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Vulnerability Manager Plus Server:

The Vulnerability Manager Plus Server helps you to centrally perform all the vulnerability management and compliance tasks in your network endpoints. Some of the tasks include the following:

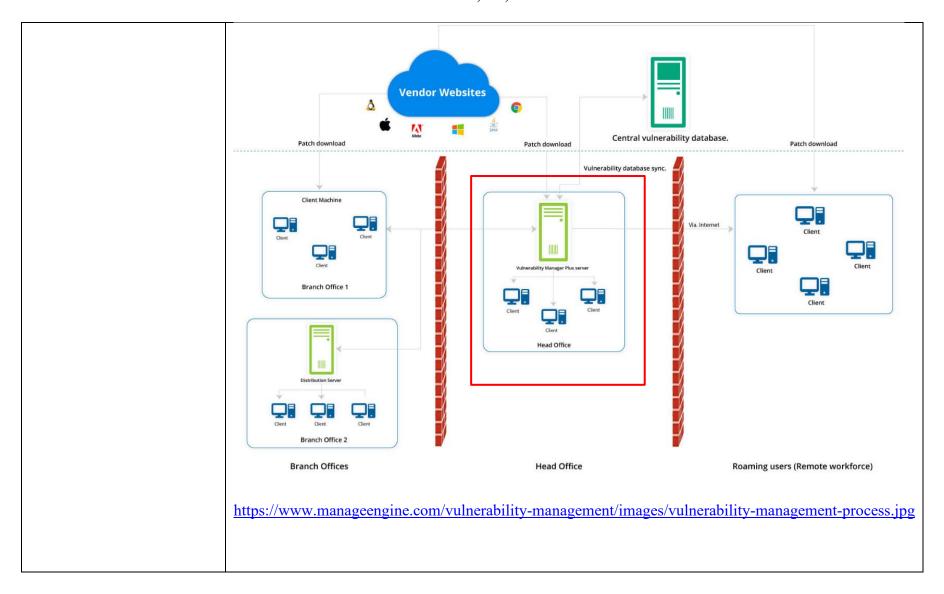
- · Installing agents in computers
- · Scanning computers for vulnerabilities and misconfigurations
- · Deploying patches and secure configurations
- · Uninstalling high-risk software
- · Auditing active ports
- Auditing for compliance against CIS benchmarks

Any of the Windows computers in your network with the requirements mentioned here can be hosted as your Vulnerability

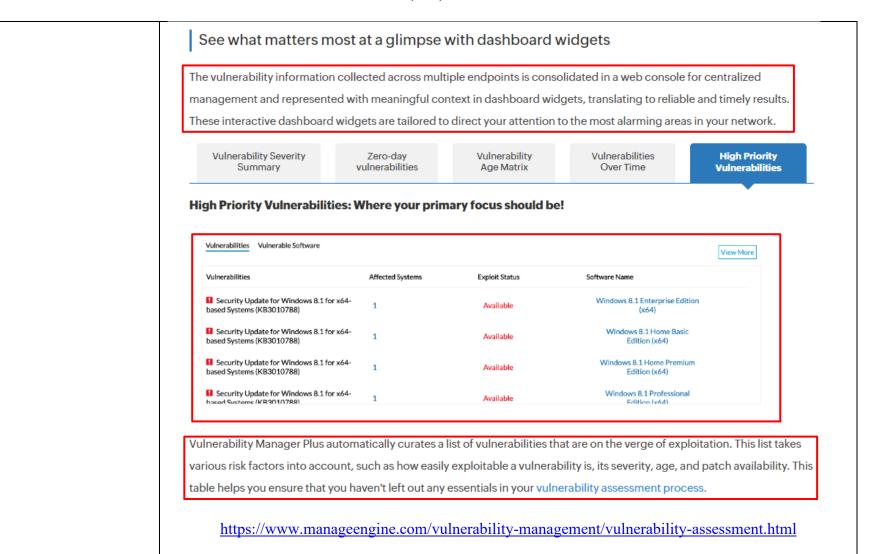
Manager Plus Server. This Vulnerability Manager Plus Server at the customer site subscribes to the Central Vulnerability Database, from which it synchronizes the latest information on threats, patches, vulnerabilities, and compliance policies. Patches are downloaded directly from vendor sites and stored centrally in the server's patch store and will be replicated to your network endpoints to conserve bandwidth.

https://www.manageengine.com/vulnerability-management/help/vulnerability-management-architecture.html#v1

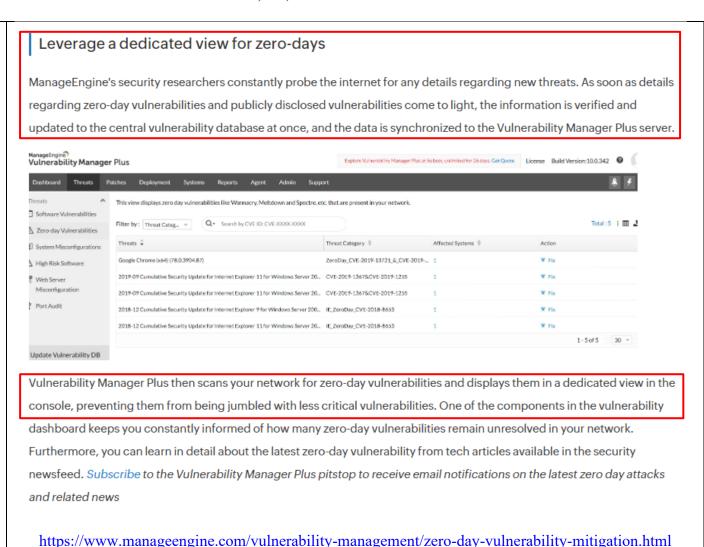
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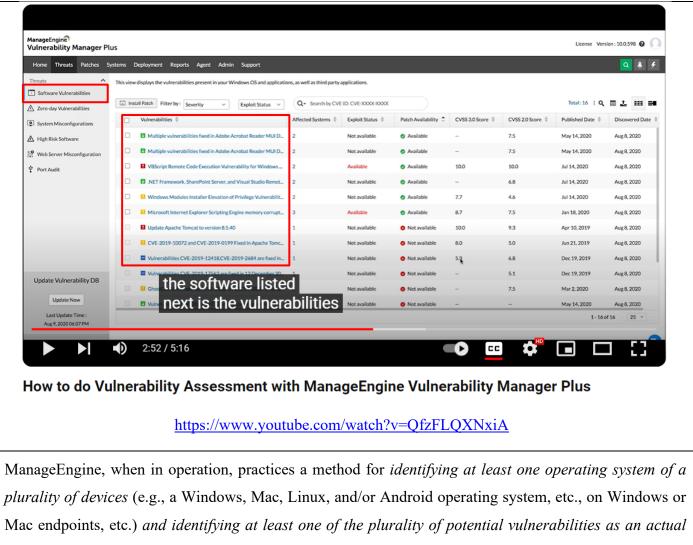
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identifying at least one operating system of plurality of devices, and based on the at least one operating system, identifying vulnerability of a plurality of actual vulnerabilities of the at least one operating system to which the plurality of devices is actually vulnerable (e.g., OS vulnerabilities are determined and under the software

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at least one of the plurality of potential vulnerabilities as an actual vulnerability of a plurality of actual vulnerabilities of the at least one operating system to which the plurality of devices is actually vulnerable; and

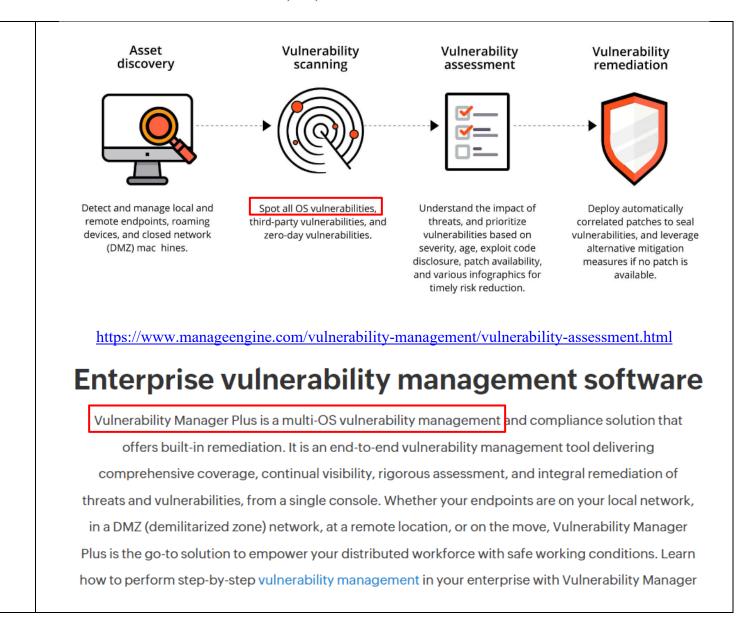
vulnerabilities section list of all potential vulnerabilities are displayed along corresponding number of the affected systems)

Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):

While you focus on what matters the most, let Vulnerability Manager Plus' built-in patching module regularly clean up the vulnerabilities in your network by automating the entire cycle of patching—including missing patch detection, download, testing, and deployment—to Windows, Mac, Linux, and over 300 third-party applications. The comprehensive patching functionality enables you to choose the criteria of patches to be automated, specific target machines/custom groups to be patched, flexible deployment policies, patch testing, and approval as well as deployment schedules based on your business requirements. What's more, you can use pre-built Patch Tuesday-based deployment policies to synchronize your patching with monthly Patch Tuesdays, and more. Explore the exhaustive capabilities of Vulnerability Manager Plus' automated patch management.

https://www.manageengine.com/vulnerability-management/vulnerability-assessment-process.html

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https://www.manageengine.com/vulnerability-

management/?pos=EndpointCentral&loc=ProdMenu&cat=UEMS

You can set up distribution servers, which replicate primary server commands, for your remote offices simplify management and conserve bandwidth. You can even manage assets within a closed network like a DMZ.

Identified systems are probed for different attributes: operating systems, open ports, installed software, user accounts, file system structure, system configurations, and more. Using the library of up-to-date scan data, Vulnerability Manager Plus checks the discovered assets for threats and vulnerabilities and delivers appropriate remediation.

Generally, patches are downloaded directly from vendor sites, stored centrally in the server's patch store, and replicated to your network endpoints to conserve bandwidth. For remote workers, you can have the client machines download essential patches from trusted vendor sites without bottlenecking the limited bandwidth of the VPN gateways.

The web console is the heart of vulnerability management. It allows you to monitor your security posture and carry out all tasks anywhere, anytime.

https://www.manageengine.com/vulnerability-management/what-is-vulnerability-management.html

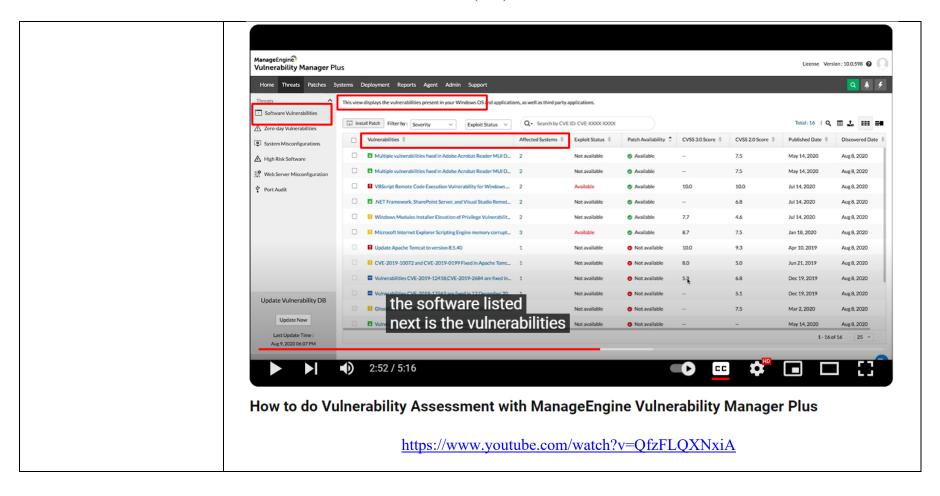
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Establish a secure foundation with security configuration management:

- Identify misconfigurations in operating systems, applications, and browsers, and bring them under compliance.
- Audit your firewalls, antivirus, and BitLocker status.
- · Prevent brute-force attempts by enforcing complex password, account lockout, and secure logon policies.
- Make sure memory protection settings, such as Structured Exception Handling Overwrite Protection, Data Execution
 Prevention, and Address Space Layout Randomization are enabled.
- Put an end to legacy protocols with risks that outweigh the benefits
- Manage share permissions, modify user account controls, and disable legacy protocols to reduce your attack surface.
- Safely alter security configurations without interrupting business operations with critical deployment warnings.

https://www.manageengine.com/vulnerability-management/what-is-vulnerability-management.html

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- The Software Vulnerabilities section enumerates vulnerabilities in the OS and third-party applications installed on the system.
- The Server Vulnerabilities section displays vulnerabilities in web servers, databases, or content management software installed on the system, if any.
- The Zero-day Vulnerabilities section displays the actively exploited and publicly disclosed vulnerabilities affecting the system.

https://www.manageengine.com/vulnerability-management/vulnerability-assessment.html

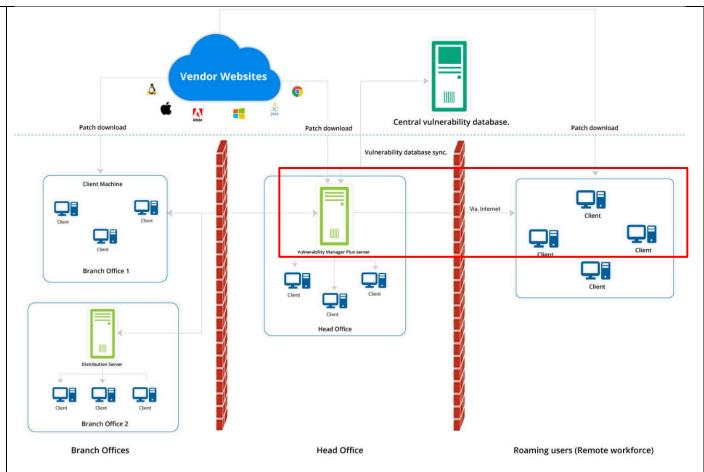
communicating, from the at least one server and to at least one of the plurality of devices over at least one network, the first vulnerability information, the first vulnerability information corresponding with the actual vulnerabilities of the at least one operating system of the at device, least one and excluding at least a portion of second vulnerability the

ManageEngine, when in operation, practices a method for communicating, from the at least one server and to at least one of the plurality of devices over at least one network, the first vulnerability information, (e.g., Vulnerability Manager Plus Server provides the vulnerability information to various endpoints or clients over network) the first vulnerability information corresponding with the actual vulnerabilities of the at least one operating system of the at least one device, (e.g., OS vulnerabilities are determined and under the software vulnerabilities section that provides list of all potential vulnerabilities which are displayed along corresponding number of the affected systems) and excluding at least a portion of the second vulnerability information that does not correspond with the actual vulnerabilities of the at least one operating system of the at least one device (e.g., a custom group is created as per the operating system wherein a vulnerability or misconfiguration is excluded for a specific custom group)

Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):

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information that does not correspond with the actual vulnerabilities of the at least one operating system of the at least one device;



https://www.manageengine.com/vulnerability-management/images/vulnerability-management-process.jpg

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Vulnerability Manager Plus Server:

The Vulnerability Manager Plus Server helps you to centrally perform all the vulnerability management and compliance tasks in your network endpoints. Some of the tasks include the following:

- Installing agents in computers
- Scanning computers for vulnerabilities and misconfigurations
- Deploying patches and secure configurations
- · Uninstalling high-risk software
- Auditing active ports
- Auditing for compliance against CIS benchmarks

https://www.manageengine.com/vulnerability-management/help/vulnerability-management-architecture.html

Any of the Windows computers in your network with the requirements mentioned here can be hosted as your Vulnerability Manager Plus Server. This Vulnerability Manager Plus Server at the customer site subscribes to the Central Vulnerability Database, from which it synchronizes the latest information on threats, patches, vulnerabilities, and compliance policies.

Patches are downloaded directly from vendor sites and stored centrally in the server's patch store and will be replicated to your network endpoints to conserve bandwidth.

https://www.manageengine.com/vulnerability-management/help/vulnerability-management-architecture.html

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You can set up distribution servers, which replicate primary server commands, for your remote offices simplify management and conserve bandwidth. You can even manage assets within a closed network like a DMZ.

Identified systems are probed for different attributes: operating systems, open ports, installed software, user accounts, file system structure, system configurations, and more. Using the library of up-to-date scan data, Vulnerability Manager Plus checks the discovered assets for threats and vulnerabilities and delivers appropriate remediation.

Generally, patches are downloaded directly from vendor sites, stored centrally in the server's patch store, and replicated to your network endpoints to conserve bandwidth. For remote workers, you can have the client machines download essential patches from trusted vendor sites without bottlenecking the limited bandwidth of the VPN gateways.

The web console is the heart of vulnerability management. It allows you to monitor your security posture and carry out all tasks anywhere, anytime.

https://www.manageengine.com/vulnerability-management/what-is-vulnerability-management.html

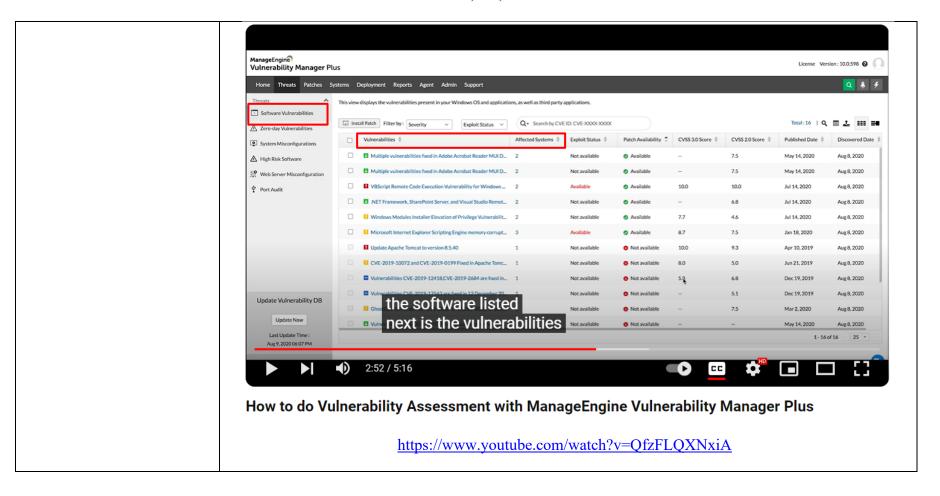
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Establish a secure foundation with security configuration management:

- Identify misconfigurations in operating systems, applications, and browsers, and bring them under compliance.
- Audit your firewalls, antivirus, and BitLocker status.
- Prevent brute-force attempts by enforcing complex password, account lockout, and secure logon policies.
- Make sure memory protection settings, such as Structured Exception Handling Overwrite Protection, Data Execution
 Prevention, and Address Space Layout Randomization are enabled.
- Put an end to legacy protocols with risks that outweigh the benefits
- Manage share permissions, modify user account controls, and disable legacy protocols to reduce your attack surface.
- Safely alter security configurations without interrupting business operations with critical deployment warnings.

https://www.manageengine.com/vulnerability-management/what-is-vulnerability-management.html

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- The Software Vulnerabilities section enumerates vulnerabilities in the OS and third-party applications installed on the system.
- The Server Vulnerabilities section displays vulnerabilities in web servers, databases, or content management software installed on the system, if any.
- The Zero-day Vulnerabilities section displays the actively exploited and publicly disclosed vulnerabilities affecting the system.

https://www.manageengine.com/vulnerability-management/vulnerability-assessment.html

Defining the exception scope:

A threat may found to be affecting multiple systems. You can control the scope of the exception by choosing the custom group to which the exception should be applied.

- A default group named, "All Computers Group" is created by Vulnerability Manager Plus. If you wish to exclude a threat
 for all the machines in your network, then you can choose "All computers group" in the custom group field. The
 excluded threat will no longer appear anywhere in the console except the Manage Exceptions view under the
 Threats tab.
- If you want to exclude a threat for a specific group of machines, then you can create separate custom groups based on OS, servers or remote office, etc., and specify that custom group while defining exceptions. Learn how to create custom groups. This is especially useful when you wish to exclude remediation to a particular group of machines. For instance, say a vulnerability or misconfiguration is excluded for a specific custom group, like custom group "Windows servers", and if it's found to be affecting any other machines outside this custom group, the vulnerability or misconfiguration will still be displayed in the appropriate view under Threats and the remediation can be applied only to the affected machines outside the custom group to which the particular threat is excluded.

https://www.manageengine.com/vulnerability-management/help/managing-threat-and-vulnerability-exceptions.html

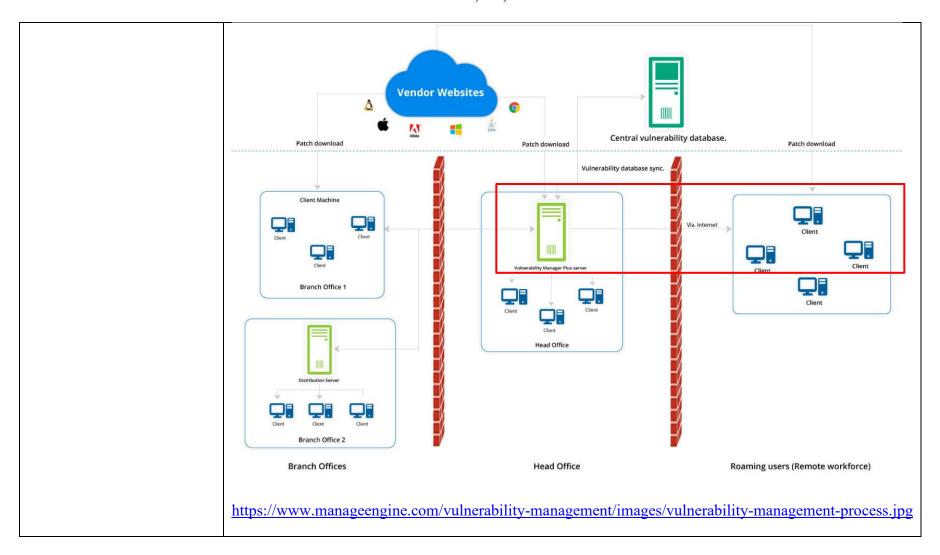
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at the at least one device:
receiving, from the at least
one server over the at least
one network, the first
vulnerability information;

ManageEngine, when in operation, practices a method wherein at least one device (e.g., any endpoint or client) receiving, from the at least one server over the at least one network, the first vulnerability information, (e.g., a Vulnerability Manager Plus server scans the network for software/zero-day vulnerabilities and displays them in a dedicated view in the console on the endpoint or client)

Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):

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Vulnerability Manager Plus Server:

The Vulnerability Manager Plus Server helps you to centrally perform all the vulnerability management and compliance tasks in your network endpoints. Some of the tasks include the following:

- Installing agents in computers
- Scanning computers for vulnerabilities and misconfigurations
- Deploying patches and secure configurations
- · Uninstalling high-risk software
- Auditing active ports
- Auditing for compliance against CIS benchmarks

https://www.manageengine.com/vulnerability-management/help/vulnerability-management-architecture.html

Any of the Windows computers in your network with the requirements mentioned here can be hosted as your Vulnerability Manager Plus Server. This Vulnerability Manager Plus Server at the customer site subscribes to the Central Vulnerability Database, from which it synchronizes the latest information on threats, patches, vulnerabilities, and compliance policies. Patches are downloaded directly from vendor sites and stored centrally in the server's patch store and will be replicated to your network endpoints to conserve bandwidth.

https://www.manageengine.com/vulnerability-management/help/vulnerability-management-architecture.html

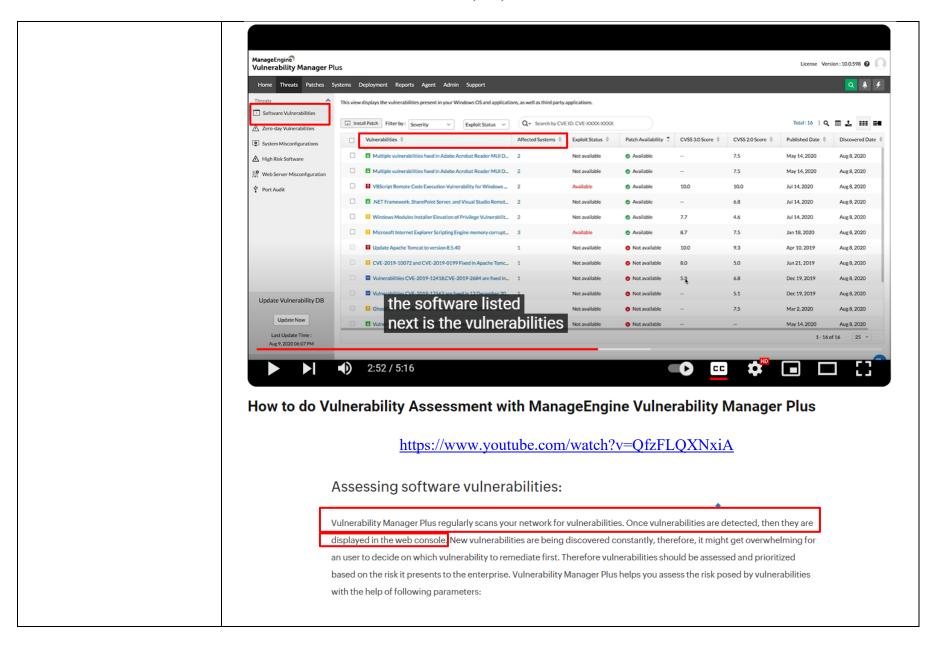
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identifying a first portion of first vulnerability the information that includes inspection-related data information that corresponds with at least one of the actual vulnerabilities of the at least one operating system of the at least one device, and that excludes other data inspection-related information of the second vulnerability information that does not correspond with the actual vulnerabilities of the at least one operating system of the at least one device;

ManageEngine, when in operation, practices a method of *identifying a first portion of the first vulnerability* information that includes data inspection-related information that corresponds with at least one of the actual vulnerabilities of the at least one operating system of the at least one device (e.g., software vulnerabilities spot OS vulnerabilities that also includes data-inspected related information such as inspecting files, information in code, scanning the data, virus signatures, virus scanner signatures), and that excludes other data inspection-related information of the second vulnerability information that does not correspond with the actual vulnerabilities of the at least one operating system of the at least one device (e.g., software vulnerabilities has an exception section which excludes other data inspection related information as specified in the custom exception group)

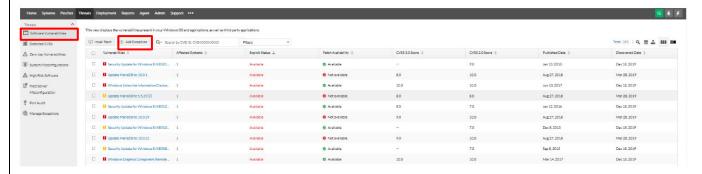
Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):

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https://www.manageengine.com/vulnerability-management/help/assess-and-remediate-vulnerabilities.html



https://www.manageengine.com/vulnerability-management/vulnerability-assessment.html?wfh-webpage

identifying a first event of a plurality of events in connection with the at least one device;

causing a determination that the at least one of the actual vulnerabilities corresponding with the data inspectionrelated information is susceptible to being taken ManageEngine, when in operation, practices a method of identifying a first event of a plurality of events in connection with the at least one device (e.g., event such as remote code execution for windows on window endpoint) causing a determination that the at least one of the actual vulnerabilities corresponding with the data inspection-related information is susceptible to being taken advantage of by the first event identified in connection with the at least one device, utilizing the data inspection-related information (e.g., event which is provided exploit status as available or severity level as critical indicates that the information is susceptible to being taken advantage of by the event such as remote code execution for windows as shown in the snippet provided)

Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):

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advantage of by the first
event identified in connection
with the at least one device
utilizing the data inspection-
related information;

Severity levels:

Vulnerabilities are classified into four severity levels ranging from low to critical based on its impact and exploitability.

Critical:

Vulnerabilities in the this range are easily exploitable and can result in root-level compromise of servers, remote code execution, information disclosure, etc. These vulnerabilities inflict great damage to the organization, therefore should be prioritized and remediated first.

Important:

Vulnerability that falls under this range are quite difficult to exploit but exploitation of them could result in significant data loss or downtime. Therefore, these vulnerabilities should be remediated once all the critical vulnerabilities are removed from your systems and servers.

Moderate:

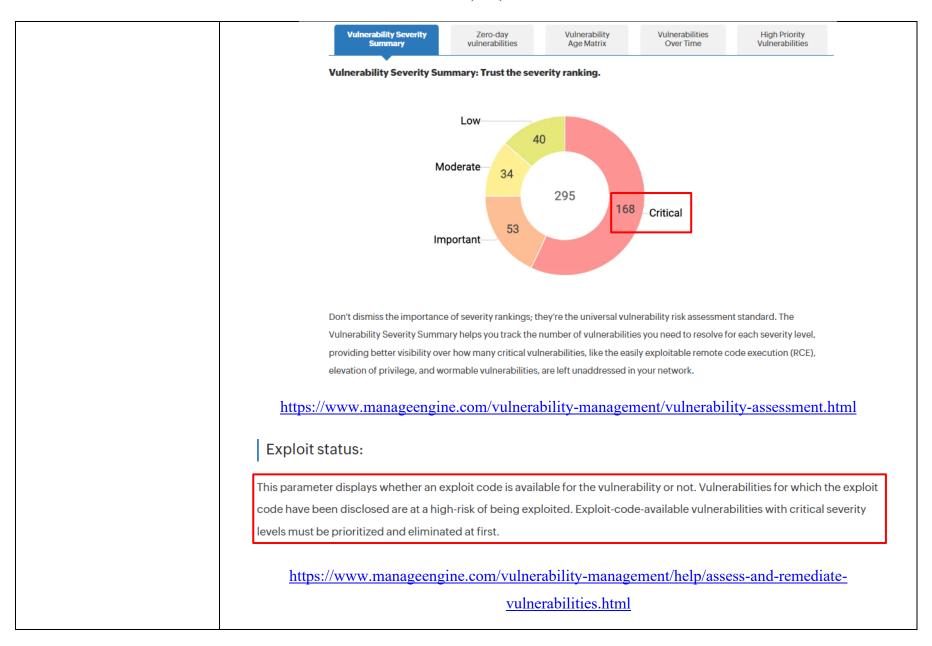
Vulnerabilities in the medium range requires social engineering, or an access to the local network to be exploited. Even when exploited, these vulnerabilities have very limited access and, to the maximum extent, can cause Denial-of-service (DoS).

Low:

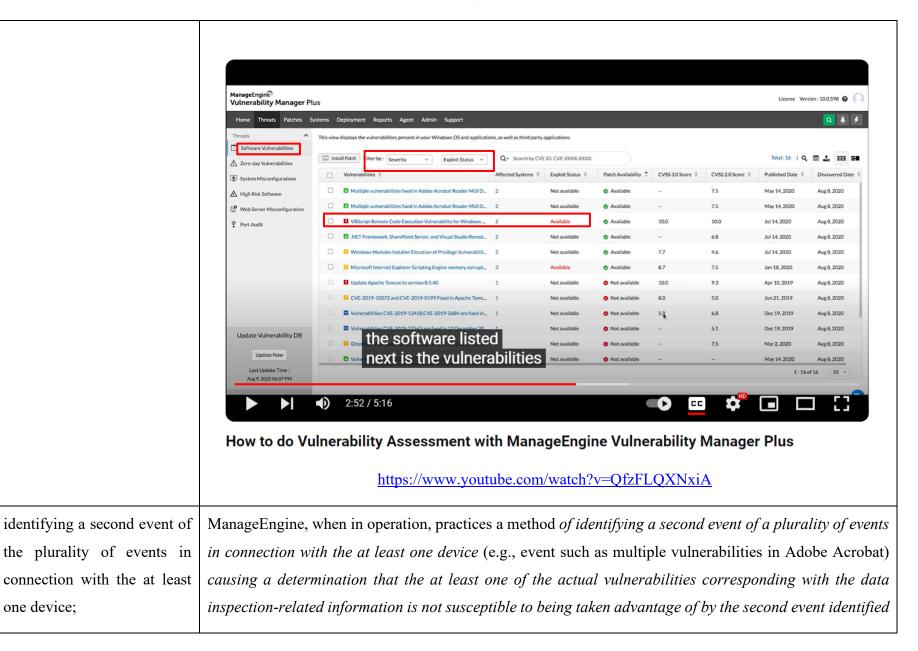
Vulnerabilities in the low range typically have tiny or no impact on an organization's business and may require local or physical system access to be exploited.

https://www.manageengine.com/vulnerability-management/help/assess-and-remediatevulnerabilities.html

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causing a determination that the at least one of the actual vulnerabilities corresponding with the data inspectionrelated information is not susceptible to being taken advantage of by the second event identified in connection with the at least one device, utilizing the data inspectionrelated information; in connection with the at least one device, utilizing the data inspection-related information (e.g., event which is provided exploit status as not available or severity level as moderate or low indicates that the information is not susceptible to being taken advantage of by the event such multiple vulnerabilities in Adobe Acrobat as shown in the snippet provided)

Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):

Severity levels:

Vulnerabilities are classified into four severity levels ranging from low to critical based on its impact and exploitability.

Critical:

Vulnerabilities in the this range are easily exploitable and can result in root-level compromise of servers, remote code execution, information disclosure, etc. These vulnerabilities inflict great damage to the organization, therefore should be prioritized and remediated first.

Important:

Vulnerability that falls under this range are quite difficult to exploit but exploitation of them could result in significant data loss or downtime. Therefore, these vulnerabilities should be remediated once all the critical vulnerabilities are removed from your systems and servers.

Moderate:

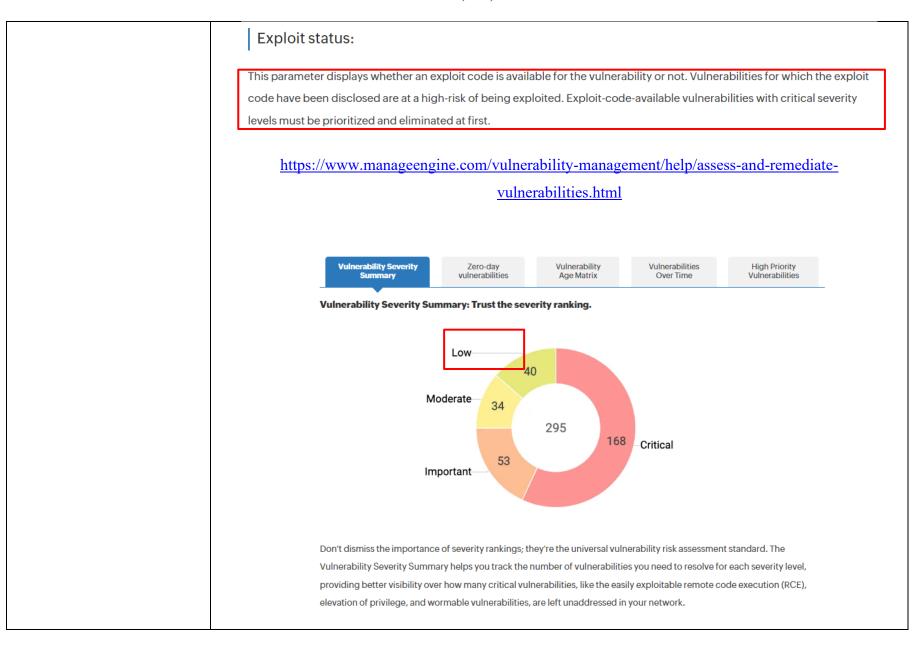
Vulnerabilities in the medium range requires social engineering, or an access to the local network to be exploited. Even when exploited, these vulnerabilities have very limited access and, to the maximum extent, can cause Denial-of-service (DoS).

Low:

Vulnerabilities in the low range typically have tiny or no impact on an organization's business and may require local or physical system access to be exploited.

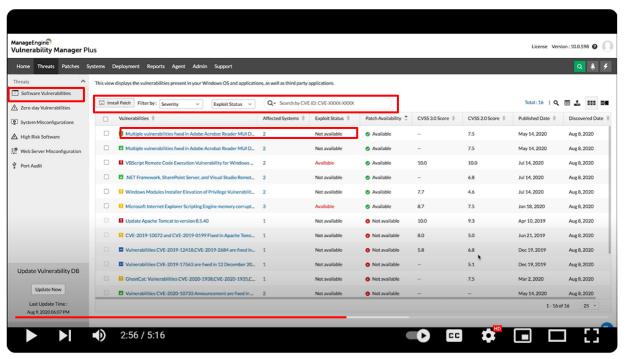
https://www.manageengine.com/vulnerability-management/help/assess-and-remediate-vulnerabilities.html

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https://www.manageengine.com/vulnerability-management/vulnerability-assessment.html



How to do Vulnerability Assessment with ManageEngine Vulnerability Manager Plus

https://www.youtube.com/watch?v=QfzFLQXNxiA

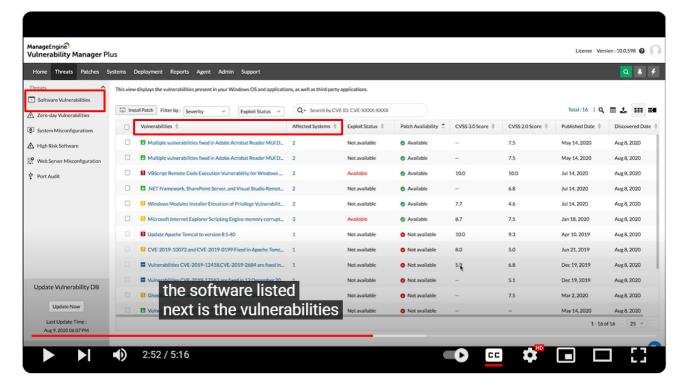
identifying a second portion of the first vulnerability information that includes traffic inspection-related information that corresponds ManageEngine, when in operation, practices a method of *identifying a second portion of the first* vulnerability information that includes traffic inspection-related information that corresponds with at least one of the actual vulnerabilities of the at least one operating system of the at least one device (e.g., software vulnerabilities spot OS vulnerabilities that also includes traffic inspection related information such as host-instruction detection signatures, inspecting traffic for attacks, host-based intrusion detection), and that

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with at least one of the actual vulnerabilities of the at least one operating system of the at least one device, and that excludes other traffic inspection-related information of the second vulnerability information that does not correspond with the actual vulnerabilities of the at least one operating system of the at least one device;

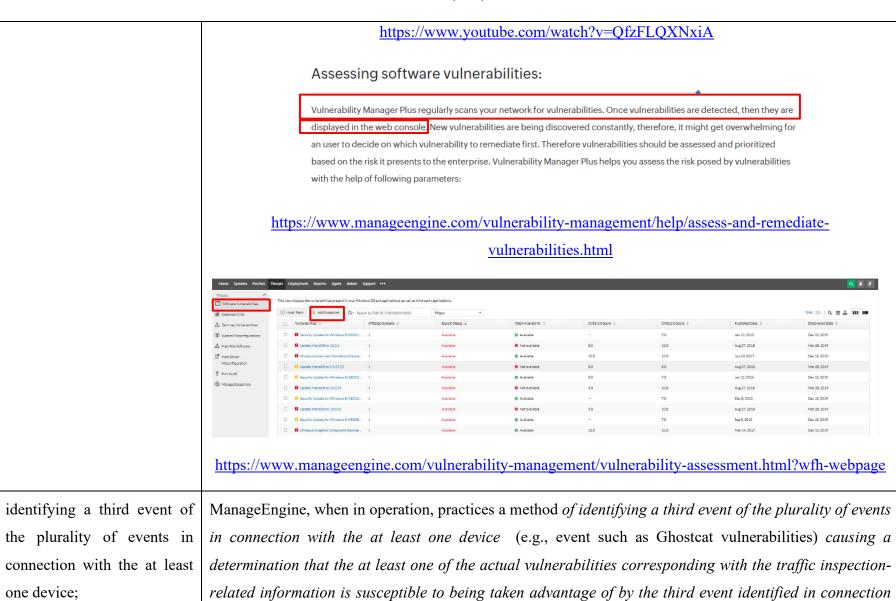
excludes other traffic inspection-related information of the second vulnerability information that does not correspond with the actual vulnerabilities of the at least one operating system of the at least one device (e.g., software vulnerabilities has an exception section which excludes other traffic inspection related information as specified in the custom exception group)

Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):



How to do Vulnerability Assessment with ManageEngine Vulnerability Manager Plus

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causing a determination that
the at least one of the actual
vulnerabilities corresponding
with the traffic inspectionrelated information is
susceptible to being taken
advantage of by the third
event identified in connection
with the at least one device,
utilizing the traffic
inspection-related
information;

with the at least one device, utilizing the traffic inspection-related information (e.g., event which is provided exploit status as available or severity level as critical indicates that the information is susceptible to being taken advantage of by the event such as Ghostcat vulnerabilities as shown in the snippet provided. Ghostcat vulnerability which is a high-risk vulnerability and herein attacker may execute malicious code on the target host)

Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):

Severity levels:

Vulnerabilities are classified into four severity levels ranging from low to critical based on its impact and exploitability.

Critical:

Vulnerabilities in the this range are easily exploitable and can result in root-level compromise of servers, remote code execution, information disclosure, etc. These vulnerabilities inflict great damage to the organization, therefore should be prioritized and remediated first.

Important:

Vulnerability that falls under this range are quite difficult to exploit but exploitation of them could result in significant data loss or downtime. Therefore, these vulnerabilities should be remediated once all the critical vulnerabilities are removed from your systems and servers.

Moderate:

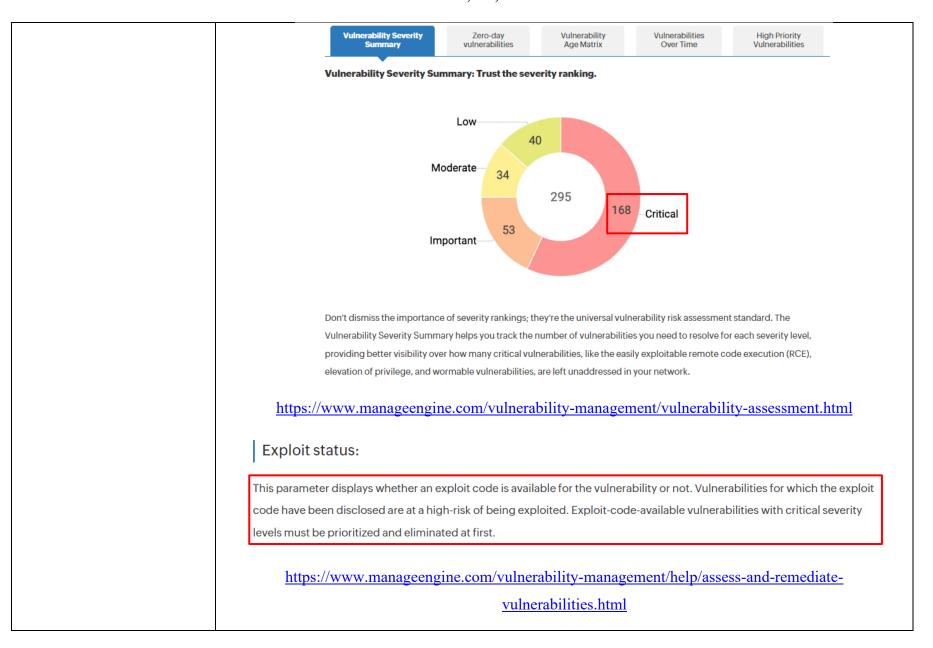
Vulnerabilities in the medium range requires social engineering, or an access to the local network to be exploited. Even when exploited, these vulnerabilities have very limited access and, to the maximum extent, can cause Denial-of-service (DoS).

Low:

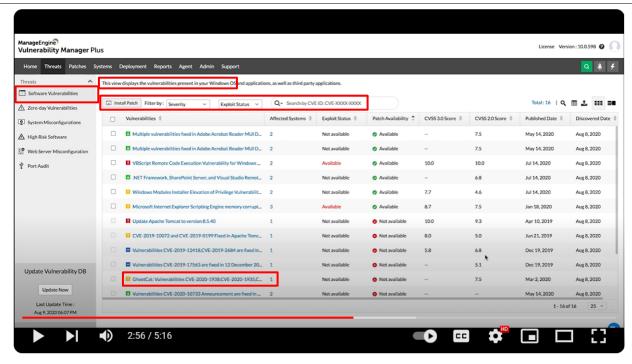
Vulnerabilities in the low range typically have tiny or no impact on an organization's business and may require local or physical system access to be exploited.

 $\frac{https://www.manageengine.com/vulnerability-management/help/assess-and-remediate-vulnerabilities.html}{}$

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How to do Vulnerability Assessment with ManageEngine Vulnerability Manager Plus

https://www.youtube.com/watch?v=QfzFLQXNxiA

identifying a fourth event of the plurality of events in connection with the at least one device; ManageEngine, when in operation, practices a method of *identifying a fourth event of the plurality of events* in connection with the at least one device (e.g., event such as NET framework, share point server) causing a determination that the at least one of the actual vulnerabilities corresponding with the traffic inspection-related information is not susceptible to being taken advantage of by the fourth event identified in connection with the at least one device, utilizing the traffic inspection-related information (e.g., event which

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causing a determination that
the at least one of the actual
vulnerabilities corresponding
with the traffic inspectionrelated information is not
susceptible to being taken
advantage of by the fourth
event identified in connection
with the at least one device,
utilizing the traffic
inspection-related
information;

is provided exploit status as not available or severity level as moderate or low indicates that the information is not susceptible to being taken advantage of by the event such as NET framework, share point server as shown in the snippet provided)

Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):

Severity levels:

Vulnerabilities are classified into four severity levels ranging from low to critical based on its impact and exploitability.

Critical:

Vulnerabilities in the this range are easily exploitable and can result in root-level compromise of servers, remote code execution, information disclosure, etc. These vulnerabilities inflict great damage to the organization, therefore should be prioritized and remediated first.

Important:

Vulnerability that falls under this range are quite difficult to exploit but exploitation of them could result in significant data loss or downtime. Therefore, these vulnerabilities should be remediated once all the critical vulnerabilities are removed from your systems and servers.

Moderate:

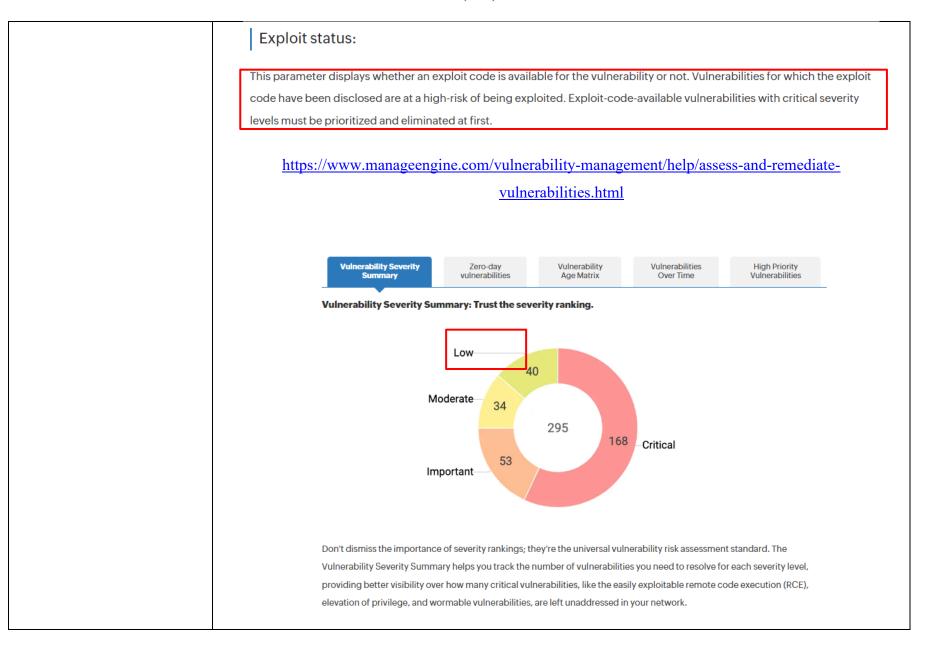
Vulnerabilities in the medium range requires social engineering, or an access to the local network to be exploited. Even when exploited, these vulnerabilities have very limited access and, to the maximum extent, can cause Denial-of-service (DoS).

Low:

Vulnerabilities in the low range typically have tiny or no impact on an organization's business and may require local or physical system access to be exploited.

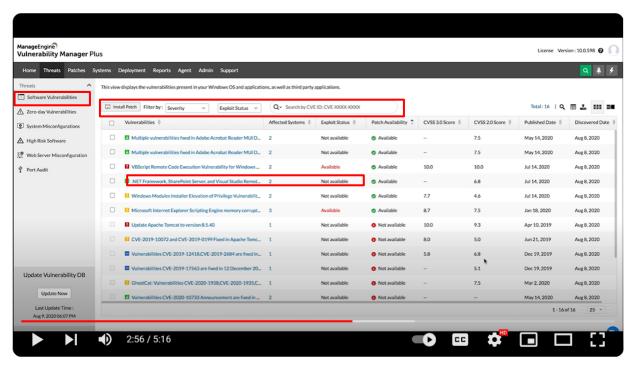
 $\frac{https://www.manageengine.com/vulnerability-management/help/assess-and-remediate-vulnerabilities.html}{}$

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https://www.manageengine.com/vulnerability-management/vulnerability-assessment.html



How to do Vulnerability Assessment with ManageEngine Vulnerability Manager Plus

https://www.youtube.com/watch?v=QfzFLQXNxiA

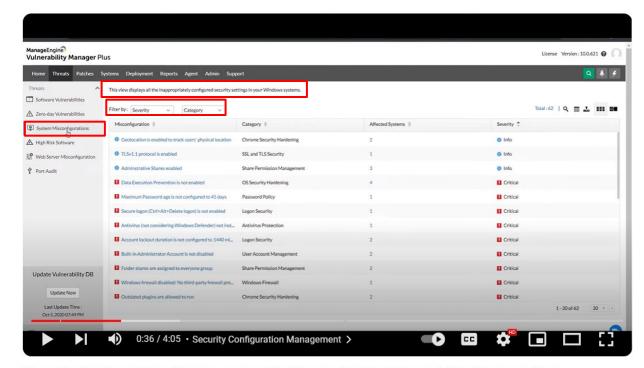
identifying a third portion of the first vulnerability information that includes firewall-related information that corresponds with at least ManageEngine, when in operation, practices a method of *identifying a third portion of the first vulnerability* information that includes firewall-related information that corresponds with at least one of the actual vulnerabilities of the at least one operating system of the at least one device (e.g., security misconfiguration provide vulnerability information that includes to firewall related information on the windows system), and that excludes other traffic inspection-related information of the second vulnerability information that does

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the of actual one vulnerabilities of the at least one operating system of the at least one device, and that excludes other firewallrelated information of the vulnerability second information that does not correspond with the actual vulnerabilities of the at least one operating system of the at least one device;

not correspond with the actual vulnerabilities of the at least one operating system of the at least one device (e.g., by providing the exception scope the custom groups vulnerability or misconfiguration can be excluded)

Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):



Security Configuration Management with ManageEngine Vulnerability Manager Plus

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Defining the exception scope:

A threat may found to be affecting multiple systems. You can control the scope of the exception by choosing the custom group to which the exception should be applied.

- A default group named, "All Computers Group" is created by Vulnerability Manager Plus. If you wish to exclude a threat for all the machines in your network, then you can choose "All computers group" in the custom group field. The excluded threat will no longer appear anywhere in the console except the **Manage Exceptions** view under the **Threats** tab.
- If you want to exclude a threat for a specific group of machines, then you can create separate custom groups based on OS, servers or remote office, etc., and specify that custom group while defining exceptions. Learn how to create custom groups. This is especially useful when you wish to exclude remediation to a particular group of machines. For instance, say a vulnerability or misconfiguration is excluded for a specific custom group, like custom group "Windows servers", and if it's found to be affecting any other machines outside this custom group, the vulnerability or misconfiguration will still be displayed in the appropriate view under Threats and the remediation can be applied only to the affected machines outside the custom group to which the particular threat is excluded.

https://www.manageengine.com/vulnerability-management/help/managing-threat-and-vulnerability-exceptions.html

identifying a fifth event of the plurality of events in connection with the at least one device;

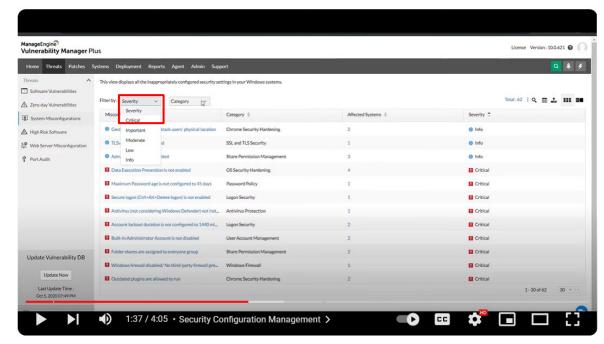
causing a determination that the at least one of the actual ManageEngine, when in operation, practices a method of *identifying a fifth event of the plurality of events* in connection with the at least one device (e.g., event such as windows firewall disabled) causing a determination that the at least one of the actual vulnerabilities corresponding with the firewall-related information is susceptible to being taken advantage of by the fifth event identified in connection with the at least one device, utilizing the firewall-related information (e.g., event which is provided category as firewall

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vulnerabilities corresponding with the firewall-related information is susceptible to being taken advantage of by the fifth event identified in connection with the at least one device, utilizing the firewall-related information;

and the severity level as critical indicates that the information is susceptible to being taken advantage of by the event such windows firewall disabled as shown in the snippet provided)

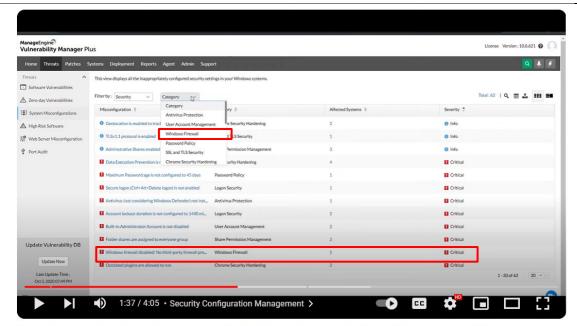
Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):



Security Configuration Management with ManageEngine Vulnerability Manager Plus

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Security Configuration Management with ManageEngine Vulnerability Manager Plus

https://www.youtube.com/watch?v=p2Oh87NruMo

identifying a sixth event of the plurality of events in connection with the at least one device; and

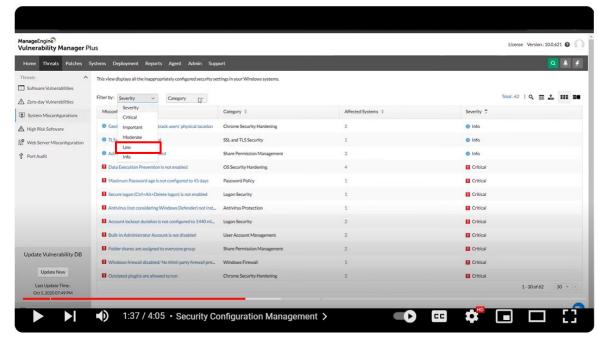
causing a determination that the at least one of the actual ManageEngine, when in operation, practices a method of *identifying a sixth event of the plurality of events* in connection with the at least one device (e.g., any event such as windows firewall related under the firewall category which is not marked as critical) causing a determination that the at least one of the actual vulnerabilities corresponding with the firewall-related information is not susceptible to being taken advantage of by the sixth event identified in connection with the at least one device, utilizing the firewall-related information (e.g., event which is provided category as firewall and the severity level as low indicates

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vulnerabilities corresponding with the firewall-related information is not susceptible to being taken advantage of by the sixth event identified in connection with the at least one device, utilizing the firewall-related information; and

that the information is not susceptible to being taken advantage of by the event such as any windows firewall event under the low severity level)

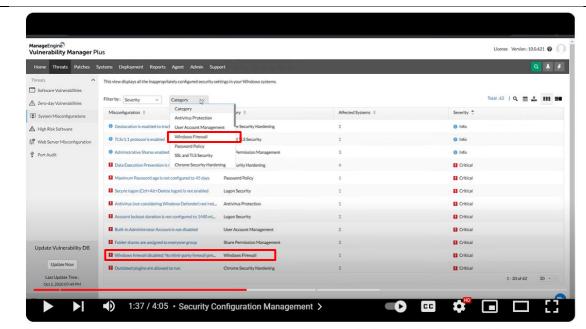
Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):



Security Configuration Management with ManageEngine Vulnerability Manager Plus

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Security Configuration Management with ManageEngine Vulnerability Manager Plus

https://www.youtube.com/watch?v=p2Oh87NruMo

at at least one administrator computer:

in response to administrator action, causing setting, before the first and second events, of a first policy associated with utilizing the ManageEngine, when in operation, practices a method wherein at least one administrator computer (e.g., admin role or technician role defined user has a computer) in response to administrator action (e.g., admin defined or technician defined rules), causing setting, before the first and second events, of a first policy associated with utilizing the data inspection-related information that is applied to a group including each of the plurality of devices that has the at least one operating system; (e.g., can define, deploy, re-deploy tasks, patches, configurations and scan operations)

Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):

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data inspection-related information that is applied to a group including each of the plurality of devices that has the at least one operating system;

Administrator Role: The Administrator role provides full control across all the modules. Only administrators can create/delete users, create roles and map them to users, define scope to users. Administrators can assign administrator role to other users as well. All the operations listed under the Admin tab are available to users to whom the administrator role is mapped. Some of the important functions that an administrator can perform include:

- 1. Defining or modifying Scope of Management
- 2. Adding/deleting Users
- 3. Changing proxy settings
- 4. Personalizing options like changing themes, setting session expiry, etc.
- 5. Scheduling vulnerability database update
- 6. Scheduling scan settings for Patch Management
- 7. Viewing Actions Logs of Vulnerability Manager Plus
- 8. Complete access to all vulnerability, compliance and patch management tasks

https://www.manageengine.com/vulnerability-management/help/user-administration.html

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Technician Role:The Technician Role has a well-defined set of permissions to do specific operations. Users under the Technician role are restricted from performing all the operations listed under the Admin tab. The operations that can be performed by users associated with the Technician Role include:

- 1. Can define and deploy all patch configurations and tasks.
- 2. Can view all the patch configurations/tasks, including those created by other users, reports, etc.
- 3. Can view all the details under Threats tab.
- 4. Can suspend, modify, or re-deploy the configurations/tasks defined by them.
- 5. Can update the Vulnerability Database.
- 6. Can perform Scan operations.
- 7. Has write permission to perform patch management tasks.
- 8. Has read permission to scope of management and reports

https://www.manageengine.com/vulnerability-management/help/user-administration.html

When you select an item from the list, a flyout panel opens with an elaborate description and resolution. You can push the resolution right from there to all affected machines and close the SCM loop instantly. This panel also displays whether an attribute for a particular component is misconfigured in domain GPO. In that case, a knowledge base article with detailed resolution steps linked in place of resolution navigates the users to alter security configurations in the GPO. Vulnerability Manager Plus can even predict potential network complications that may arise in the future due to configuration modifications, which helps you safely alter the configurations without impeding critical business operations.

https://www.manageengine.com/vulnerability-management/security-configuration-management.html

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in response to administrator action, causing setting, before the third and fourth events, of a second policy associated with utilizing the traffic inspection-related information that is applied the group including each of the plurality of devices that has the at least one operating system; and

ManageEngine, when in operation, practices a method wherein *in response to administrator action* (e.g., admin defined or technician defined rules), *causing setting, before the third and fourth events, of a second policy associated with utilizing the traffic inspection-related information that is applied the group including each of the plurality of devices that has the at least one operating system (e.g., can define, deploy, re-deploy tasks, patches, configurations and scan operations)*

Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):

Administrator Role: The Administrator role provides full control across all the modules. Only administrators can create/delete users, create roles and map them to users, define scope to users. Administrators can assign administrator role to other users as well. All the operations listed under the Admin tab are available to users to whom the administrator role is mapped. Some of the important functions that an administrator can perform include:

- 1. Defining or modifying Scope of Management
- 2. Adding/deleting Users
- 3. Changing proxy settings
- 4. Personalizing options like changing themes, setting session expiry, etc.
- 5. Scheduling vulnerability database update
- 6. Scheduling scan settings for Patch Management
- 7. Viewing Actions Logs of Vulnerability Manager Plus
- 8. Complete access to all vulnerability, compliance and patch management tasks

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- 1. Can define and deploy all patch configurations and tasks.
- 2. Can view all the patch configurations/tasks, including those created by other users, reports, etc.
- 3. Can view all the details under Threats tab.
- 4. Can suspend, modify, or re-deploy the configurations/tasks defined by them.
- 5. Can update the Vulnerability Database.
- 6. Can perform Scan operations.
- 7. Has write permission to perform patch management tasks.
- 8. Has read permission to scope of management and reports

https://www.manageengine.com/vulnerability-management/help/user-administration.html

When you select an item from the list, a flyout panel opens with an elaborate description and resolution. You can push the resolution right from there to all affected machines and close the SCM loop instantly. This panel also displays whether an attribute for a particular component is misconfigured in domain GPO. In that case, a knowledge base article with detailed resolution steps linked in place of resolution navigates the users to alter security configurations in the GPO. Vulnerability Manager Plus can even predict potential network complications that may arise in the future due to configuration modifications, which helps you safely alter the configurations without impeding critical business operations.

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in response to administrator action, causing setting, before the fifth and sixth events, of a third policy associated with utilizing the firewall-related information that is applied to the group including each of the plurality of devices that has the at least one operating system.

ManageEngine, when in operation, practices a method wherein *in response to administrator action* (e.g., admin defined or technician defines rules), *causing setting, before the fifth and sixth events of a third policy associated with utilizing the firewall-related information that is applied to the group including each of the plurality of devices that has the at least one operating system. (e.g., can define, deploy, re-deploy tasks, patches, configurations and scan operations)*

Note: See, for example, the evidence above (where applicable) and below (emphasis added, if any):

Administrator Role: The Administrator role provides full control across all the modules. Only administrators can create/delete users, create roles and map them to users, define scope to users. Administrators can assign administrator role to other users as well. All the operations listed under the Admin tab are available to users to whom the administrator role is mapped. Some of the important functions that an administrator can perform include:

- 1. Defining or modifying Scope of Management
- 2. Adding/deleting Users
- 3. Changing proxy settings
- 4. Personalizing options like changing themes, setting session expiry, etc.
- 5. Scheduling vulnerability database update
- 6. Scheduling scan settings for Patch Management
- 7. Viewing Actions Logs of Vulnerability Manager Plus
- 8. Complete access to all vulnerability, compliance and patch management tasks

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Technician Role:The Technician Role has a well-defined set of permissions to do specific operations. Users under the Technician role are restricted from performing all the operations listed under the Admin tab. The operations that can be performed by users associated with the Technician Role include:

- 1. Can define and deploy all patch configurations and tasks.
- 2. Can view all the patch configurations/tasks, including those created by other users, reports, etc.
- 3. Can view all the details under Threats tab.
- 4. Can suspend, modify, or re-deploy the configurations/tasks defined by them.
- 5. Can update the Vulnerability Database.
- 6. Can perform Scan operations.
- 7. Has write permission to perform patch management tasks.
- 8. Has read permission to scope of management and reports

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When you select an item from the list, a flyout panel opens with an elaborate description and resolution. You can push the resolution right from there to all affected machines and close the SCM loop instantly. This panel also displays whether an attribute for a particular component is misconfigured in domain GPO. In that case, a knowledge base article with detailed resolution steps linked in place of resolution navigates the users to alter security configurations in the GPO. Vulnerability Manager Plus can even predict potential network complications that may arise in the future due to configuration modifications, which helps you safely alter the configurations without impeding critical business operations.

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